

REMARKS

After entry of the amendment, claims 1-9 and 15-21 are pending.

Claims 1-6, 9, 15-16 and 18-20 are rejected under 35 U.S.C. §103(a) as being unpatentable over Great Britain Patent Specification Number 1,499,807 to Ring.

Claims 7, 8 and 17 are rejected under 35 U.S.C. §103(a) as being unpatentable over Ring in view of Japanese Patent Number 5-337966.

The rejection of claims 1-9 and 15-20 is respectfully traversed.

Rejection of the Claims Under 35 U.S.C. §103(a) Over Ring, and Ring and Easton

In section number 3 of the Office Action, the Examiner rejected claims 1-6, 9, 15-16 and 18-20 under 35 U.S.C. §103(a) as being unpatentable over Ring.

On page 3 of the Office Action, the Examiner takes the position that Ring renders claim 1 obvious on the basis that the phrase “rolled up, substantially uncured sheet” is treated as a product by process limitation. The Examiner notes that “[a]s set forth in MPEP 2113, product by process claims are NOT limited to the manipulations of the recited steps, only to the structure implied by the steps (i.e., claim 1 implies the structural requirement that the fibers be unidirectional and run lengthwise in the tube, but does not require the internal core be a rolled-up sheet).”

Applicants cite the pertinent language of claim 1:

internal core which comprises a rolled-up,
substantially uncured sheet of pre-impregnated fibre
and plastics composite material

Applicants submit that the claim does not recite a process or manner by which the orthotic strut component has been produced, but rather a structural feature. A “rolled-up, substantially uncured sheet” is a structural feature that is visible to an observer. Applicants submit that there is no disclosure whatsoever in Ring of an uncured sheet formed into a rolled-up core.

Applicants note that MPEP 2113 states that “[t]he product-by-process claim was rejected because the end product, in both the prior art and the allowed process, ends up containing metal

carboxylate. The fact that the metal carboxylate is not directly added, but is instead produced in-situ does not change the product.” (emphasis added.)

Thus, MPEP 2113 makes a distinction between structural and non-structural differences between a claimed invention and the prior art. Because a “rolled-up, substantially uncured sheet” is a structural feature that will be visible to a user, Applicants request that the Examiner reconsider and withdraw the rejection of claim 1 and the claims depending therefrom.

More particularly, as discussed on page 6, lines 2-13, the present invention minimizes the presence of voids in the composite core 12B of the strut and also allows the tightly rolled sheet to be inserted freely along the whole length of the circular sectioned tube 12A. The latter feature permits the core to be located safely within the tube without risk of damaging the longitudinal fibres by contact with the inner surface of the tube, leading to a stronger component.

In contrast, Applicants submit that Ring requires the similar-sectioned tubing to be “densely packed with resin coated carbon fibres” by drawing them as tows into the tubing (Ring, pg. 2, lines 24-36). The structure disclosed in Ring will almost inevitably have the associated risk of damage to the fibres resulting not only in the presence of discontinuous fibres but also in an unknown resin content due to “the excess resin [being] squeezed out.” (Ring, pg. 2, lines 36-42).

It is submitted that such structural differences between the claimed invention and Ring would not be obvious over Ring. Ring discloses inserting the carbon fibre tows into the aluminum tubing but has clearly not appreciated the difficulties that could result therefrom, let alone the structure recited in claim 1 of the present invention.

The dimensions recited in claim 1 for the tube are those determined by Applicants to provide the required strength of the strut compatible with light weight. It is submitted, therefore that these, and the other dimensions recited in other claims go beyond being “an obvious matter of design choice to a person of ordinary skilled in the art of orthotics,” as asserted by the Examiner.

With regard to dependent claims 7, 8 and 18, Applicants submit that the recited features are not obvious over Ring in view of the ‘966 patent. There is no teaching or suggestion in either reference as to why one skilled in the art would consider the ‘966 patent and extract from it the provision of a heat activated expansion agent to put into the material and structure disclosed by Ring. Ring requires dense packing of the aluminum tubing with the resin coated carbon fibres (Ring, pg. 2,

lines 28-31) and it might be expected that the further insertion of an expansion agent would be to the detriment of this requirement.

Applicants submit that the remarks pertaining to MPEP 2113 with regard to claim 1 also apply to claim 19. In particular, Applicants submit that claim 19 recites a structural feature. An “internal core which comprises a rolled-up and cured sheet” is a structural feature visible to an observer. Applicants find no disclosure whatsoever in Ring of at least a rolled-up core.

Applicants again note that MPEP 2113 states that “[t]he product-by-process claim was rejected because the end product, in both the prior art and the allowed process, ends up containing metal carboxylate.” (emphasis added.)

Thus, MPEP 2113 makes a distinction between structural and non-structural differences between a claimed invention and the prior art. Because a “rolled-up and cured sheet” is a structural feature that will be visible to a user, Applicants submit that the Examiner reconsider and withdraw the rejection of claim 19 claim 20 depending therefrom.

Applicants submit newly added claim 21 for the Examiner’s consideration. Applicants find no teaching in the prior art, for example, of at least the “freely positioned” limitation, which is shown in Figure 3 of the present application and discussed, for example, on page 6, lines 2-13. For at least this reason, Applicants submit that claim 21 recites allowable subject matter.

CONCLUSION

Applicants respectfully submit that, as described above, the cited prior art does not show or suggest the combination of features recited in the claims. Applicants do not concede that the cited prior art shows any of the elements recited in the claims. However, Applicants have provided specific examples of elements in the claims that are clearly not present in the cited prior art.

Applicants strongly emphasize that one reviewing the prosecution history should not interpret any of the examples Applicants have described herein in connection with distinguishing over the prior art as limiting to those specific features in isolation. Rather, Applicants assert that it is the combination of elements recited in each of the claims, when each claim is interpreted as a whole, that is patentable. Applicants have emphasized certain features in the claims as clearly not present in the claims, as discussed above. However, Applicants do not concede that other features in the claims are also not missing in the prior art. Rather, for the sake of simplicity, Applicants are providing examples of why each of the claims described above are distinguishable over the cited prior art.

For all the reasons advanced above, issuance of a Notice of Allowance is respectfully requested.

Application No. 10/071,722
Response dated August 3, 2006
Reply to Office Action dated February 7, 2006

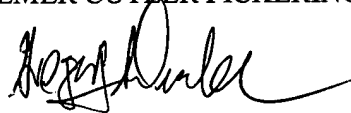
AUTHORIZATION

The Commissioner is hereby authorized to charge any fees that may be required for entry of this Amendment, or credit any overpayment to deposit account no. 08-0219.

In the event that an extension of time is required, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to deposit account no. 08-0219.

Respectfully submitted,

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